

Butterfly Valves	Each
Gate Valves	Each
Hydrants	Each
Reset Hydrants	Each
Excavation	Cubic Yard
Aggregates	Ton, Cubic Yard
Tapping Saddle (or Sleeve) with Tapping Valve and Box	Each
Sewer Lines	Linear Foot
Water Service Lines	Linear Foot
Fittings (Ductile Iron)	Pound

This payment will be full compensation for all labor, equipment, and materials necessary to complete the work.

Items not listed as pay items on the Plans and Proposal Forms shall be incidental and included in the price bid for other items.

## SECTION 740 DAMPPROOFING AND FABRIC WATERPROOFING

### 740.01 DESCRIPTION.

This work consists of furnishing materials and placing dampproofing and fabric waterproofing on surfaces and areas specified.

### 740.02 MATERIALS.

Materials shall meet the following:

Item	Section
Primer	824.01
Asphalt	824.02
Woven Cotton Fabric	824.03
Black Polyethylene Membrane	824.04

### 740.03 CONSTRUCTION REQUIREMENTS.

- A. **General.** Dampproofing and waterproofing shall be done in dry weather and when the air temperature is above 40°F. The asphalt shall be heated to a temperature between 300°F. and 350°F, and shall not be locally overheated. The heating kettles shall be equipped with thermometers. The fabric shall be stored in a dry protected place. Damaged fabric shall not be used.
- B. **Dampproofing.** The surface on which the dampproofing is applied shall be dry and clean.

Two coats of primer shall be applied at the rate of 75 square feet per gallon per coat. The first prime shall be dry before the second prime is applied. After the second prime is dry, the first asphalt seal coat shall be applied at the rate of 90 square feet per gallon per coat. After the first coat has been in place for at least 10 hours, a second coat of asphalt shall be applied in the same manner as the first coat. Asphalt seal shall be applied by brush only.

Care shall be taken not to disfigure any other parts of the structure by dripping or spreading of the prime or asphalt.

- C. **Fabric Waterproofing.** Two coats of primer shall be applied at rate of 75 square feet per gallon per coat. The first prime coat shall be dry before the second prime coat is applied. The asphalt tack coat shall be applied after the last prime coat is dry. While the asphalt is still tacky, the fabric shall be applied as shown in the Contract. Successive layers of fabric shall be tacked with asphalt. After the fabric has set, it shall be covered with a coat of asphalt heavy enough to conceal the weave of the fabric. Damaged waterproofing shall be repaired at the Contractor's expense.
- D. **Black Polyethylene Membrane.** Black Polyethylene Membrane may be used in lieu of fabric waterproofing at no additional expense to the Department.

Concrete surfaces shall be wood floated or smooth formed. The surface shall be dry and free of all dust, stones, debris, and sharp protrusions.

Primer shall be applied by brush, roller, or spray at the rate of 300 to 800 square feet per gallon depending on the porosity of the surface. Primer shall dry at least one hour but not to exceed 36 hours.

The membrane shall be rolled into the primer eliminating all wrinkles and bubbles and producing a smooth finish. All joints shall be lapped a minimum of 2 1/2 inches. Both edges of the laps and all exposed edges of the membrane shall be sealed with joint sealing mastic.

Ambient, surface, and material temperatures shall be over 40°F. during application.

#### **740.04 METHOD OF MEASUREMENT.**

Dampproofing and waterproofing of the different types will be measured by the Square Yard complete and in place.

#### **740.05 BASIS OF PAYMENT.**

Payment will be made at the Contract Unit Prices for the following:

<b>Pay Item</b>	<b>Pay Unit</b>
Dampproofing	Square Yard
Fabric Waterproofing	Square Yard

This payment will be full compensation for all labor, equipment, and materials necessary to complete the work.